

The NIH Record

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of
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New Bacterial Species Named After NIH Scientist

The name of Herman will go down in scientific annals for perpetuity, according to a recent announcement from the Centers for Disease Control in Atlanta.

Dr. Lloyd G. Herman, an NIH scientist for over 20 years in the Environmental Services Branch, DRS, shared the honor of having a new bacterial species named after him.

An environmental microbiologist, Dr. Herman has pursued organisms similar to this particular bacterial strain, often referred to as yellow-pigmented slow-growing water bacteria, since 1963. He states he has taken "hundreds of cultures in and around the NIH campus and consistently found them in both static and piped water supply systems."

Although he officially retired from NIH in 1979, Dr. Herman gave a presentation on his studies at the International Symposium on Yellow-Pigmented Gram Negative Bacteria in Brunswick, W. Germany, in 1980.

The newly isolated strain will be named *Escherichia hermannii* (pronounced her-mahn-nee-eye), and is classified as an atypical strain belonging to the biogroup of *E. coli*.

The other recipient of the honor of the Latin-named bacteria is Dr. George J.



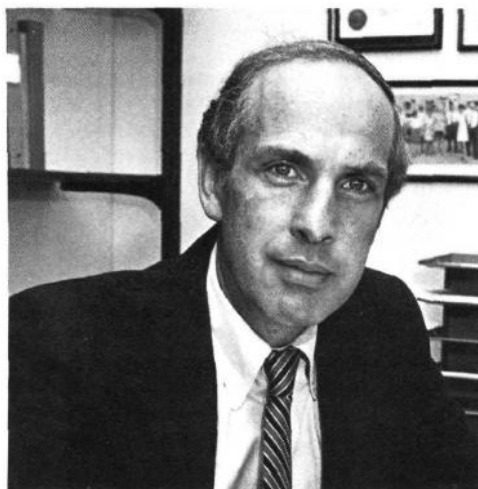
In 1978, Dr. Herman authored a 25-page chapter on Slow-Growing Pigmented Water Bacteria, published in the book, *Advances in Applied Microbiology*. The bacterial strain will now be called *Escherichia hermannii*.

Hermann, former chief of the enteric section, CDC.

In the April 1982 *Journal of Clinical Microbiology*, the published description by the CDC Bacteriology Reference Branch, states:

(See HERMANNII, Page 9)

Drs. Lipsett and Salans Appointed New Institute Directors by Dr. Wyngaarden



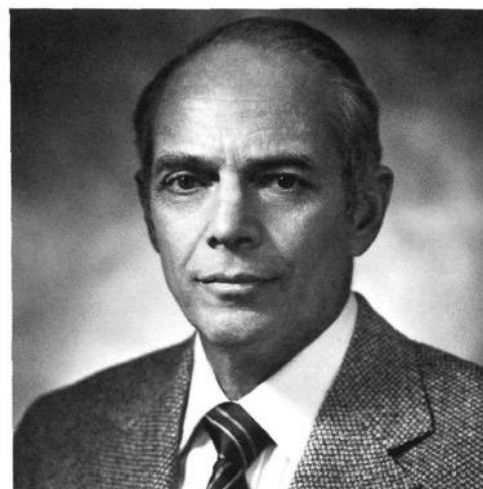
Dr. Salans

Dr. James B. Wyngaarden, Director of the National Institutes of Health, announced the appointment of two Institute Directors. They are Dr. Lester B. Salans as Director of the National Institute of Arthritis, Diabetes, and Digestive and Kidney Diseases and Dr. Mortimer B. Lipsett as Director of the National Institute of Child Health and Human Development.

The appointment of Dr. Salans, 46, now NIADDK Acting Director, will be effective immediately. Dr. Lipsett, 61, who is currently Director of the Warren Grant Magnuson Clinical Center, will assume his new position July 1.

Dr. Salans is internationally recognized for his research in diabetes and obesity, particularly the mechanisms of insulin action and the regulation of adipose tissue function. He has served as Acting Director of the Institute since October 1981 and was NIADDK's associate director for diabetes, endocrinology and metabolic diseases from 1976. In this position he had primary responsibility for coordinating the entire Federal research effort in diabetes and related disorders.

Prior to coming to NIH in 1976, Dr. Salans held positions at Dartmouth Medical School and at Rockefeller University Hospital, where he did teaching, clinical work, and scientific research. He received his M.D. degree from the University of Illinois College of Medicine.



Dr. Lipsett

Dr. Lipsett, who is an internationally recognized expert in developmental endocrinology, has also served in managerial roles at NIH and elsewhere. He has served as Clinical Center Director since 1976, where he managed the largest hospital in the world devoted solely to medical research.

During his tenure there, he has been responsible for integrating into the Clinical Center the new NIH Ambulatory Care Research Facility. For his accomplishments in administration of the Clinical Center, he received the DHHS Distinguished Service Award in 1981.

Dr. Lipsett has served 23 years with the NIH. Prior to taking his post at the NIH Clinical Center, he spent 2 years as Director of a cancer center in Cleveland where he managed community outreach programs, and the conduct of clinical and basic research. From 1970 to 1974, he was associate scientific director at the National Institute of Child Health and Human Development where he developed one of the world's best known research groups in developmental endocrinology. From 1957 to 1970, he was with the National Cancer Institute in various capacities.

Dr. Lipsett received his M.D. degree from the University of Southern California. He is the author of more than 250 scientific papers, most of them in the area of endocrinology. □

The NIH Record

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Dr. Philip S. Chen Named Acting Science Deputy Director

Dr. Philip S. Chen has been named Acting NIH Deputy Director for Science by Dr. James B. Wyngaarden, NIH Director.

Dr. Joseph E. Rall, who since July 1981 has served in that capacity in addition to his regular assignment as scientific director of the National Institute of Arthritis, Diabetes, and Digestive and Kidney Diseases, has decided to return full-time to his post at NIADDK.

Dr. Chen is the NIH Assistant Director for Intramural Affairs. □

Training Tips

The following courses, sponsored by the Division of Personnel Management, are given in Bldg. 31.

Office Skills	Course Starts	Deadline
Beginning Typing	7/13	6/21
Supervisory and Management		
Writing and Classifying Position Descriptions in the F.E.S. Format	7/8	6/25

To learn more about courses in office and communication skills, contact the Training Assistance Branch, DPM, 496-2146.

For further information on supervisory and management courses, contact the Executive and Management Development Branch, DPM, 496-6371.

'America's Spirit' Performs July 9

America's Spirit, presented by Hyde School, Bath, Me., will perform on Friday, July 9, from noon until 1 p.m. in Masur Auditorium. □

Guest Researcher Burned In Laboratory Fire

A 43-year-old NIMH guest researcher received second-degree burns to her hands and legs when the vapors from a mixture of acetone and petroleum ether exploded because of a spark from the open motor of a nearby laboratory homogenizer.

The accident occurred at 12:55 p.m. in the third-floor Clinical Center laboratory on Thursday, June 10. The researcher was alone while preparing tissue samples at the time of the chemical fire. Fire officials credit the containment of the fire to inside the laboratory to the fact that the door was closed. Officials estimate \$25,000 in damage.

The NIH Fire Department extinguished the fire, and called for the U.S. Park Police's helicopter to transport the victim from the National Naval Medical Center to the Washington Hospital Center.

The NIH Division of Safety encourages everyone to inspect their facilities for pos-



The researcher was working at this laboratory bench when the fire ignited her clothing.

sible safety problems. Anyone having questions may call 496-2346 for assistance. □

Market-Based Variable Interest Rates Still a Possibility on U.S. Savings Bonds



NIH Director Dr. James B. Wyngaarden makes a point with Len Elmore (c), N.J. Nets basketball star, and John Bothelho (l), U.S. Treasury Department representative, at the NIH U.S. Savings Bond kickoff rally held June 3 in Masur Auditorium.

As of June 14, the U.S. Treasury Department reports that legislation is still pending for allowing a market-based variable interest rate to be paid on U.S. Savings Bonds.

If this legislation is enacted, the interest rate on bonds would float as market rates fluctuate, thus providing a maximum return at all times. Officials at the U.S. Savings Bonds office are still optimistic about the passage. However, they cannot foretell when it will happen.

At the present time, the EE bond interest rate is 9 percent if held for 8 years. The HH bond rate is 8.5 percent, with interest paid semiannually.

Despite the fact that U.S. Savings Bond rates are well below money market levels, the program offers a unique opportunity to accumulate a lifelong nestegg. The automatic payroll deduction (minimum from \$3.75) each payday is extremely convenient and can result in a substantial equity buildup over the years.

The bond equity is safe (guaranteed by

the U.S. Government); can be cashed in immediately upon presentation of the bonds; are tax-deferred until maturity or cashin; and can be used to advantage in a number of ways.

For instance, college costs have increased tremendously during the past few years. An excellent plan for accumulating a college cost fund for children can be accomplished by purchasing bonds in each dependent child's name. Under the Internal Revenue Code, up to \$1,000 per year is unearned interest income and is not taxable. □

Day Care Program Sponsors Bookfair

The NIH Child Care programs are sponsoring the fourth annual children's bookfair on Tuesday, Wednesday and Thursday, June 22-24, in Bldg. 31, A wing, patio area, to benefit the scholarship fund.

A wide variety of high-quality children's books will be available as well as a selection of books for adults. □

Fifth NIH Challenge Relay Race 1982



Seventy-five teams ran in this year's spring festival of running. Record-breaking times were turned in by many of the teams participating. Event organizers say they plan to put a special emphasis on the "fun" aspect of the race next year.



NIH Deputy Director Dr. Thomas E. Malone readies runners for the start of this year's Institute relay race at noon on May 26.



First-place men's team finishers were the Carderock Express/NCI who set a new record with 11:52 as they edged out Hepatitis A/FDA, BOB by 4 seconds. Third place went to Powdermilk Biscuit/NIADDK with a time of 12:43. The winners are (l to r): Jeff Federick, John Gang, Sam Wilson, Richard Bordy, and Brian Kay.



BEIB's Bob Lutz of We Think We Can catches his breath after crossing the finishing line.

TV-9 To Defend Its Right To Play Ball on July 18

Medicine and media will clash again at the Seventh Annual Patient Emergency Fund Softball Game on Sunday, July 18, at noon at the Georgetown Preparatory School in Rockville, Md. Parking will be on the school's grounds.

The NIH Gashouse Gang takes on The One & Only TV-9 (WDVM-TV team) in what has become a grudge match. The rivalry began when the Gashouse Gang thrashed the One & Onlys 14 to 1 and 14 to 3 in a doubleheader at the fourth annual game. The TV-9'ers, however, staged a comeback in the sixth annual game beating NIH 8 to 7. A rematch was immediately requested by both teams.

One & Onlys' cocaptain Ron Sarro threatened, "This year, no more Mr. Nice Guys. We won't let you lose. We'll make you lose. RIF the NIH nine." Cocaptain Mike Buchanan commented, "The third year is a charm." WDVM sportscaster Glenn Brenner has commented, "This is the finest coed softball team I've ever



seen." Litefeet II, the winner of last year's event, took a first place in the women's division by beating their old record and set a new record with 15:31. Geron Gazelles/NIA-GRC took a second with 17:02. The Flash Five/NIMH, DRG-NINCDS finished third with 17:48. Litefeet included (l to r): Cathy Bushnell, Susan Vargo, Linda Shone, Lenore Gelb, Pat Bransford, Tricia Haun.



Will Gordon Peterson (r) continue his wildly enthusiastic support of Glen Brenner's thoughtful and incisive coaching this year, or will he continue to be a steady anchor that encourages an ersatz ball team? The question remains will the highly priced representatives of the "Tower of Babel" put to sleep in nine those from the Gas House?

seen."

Gashouse Gang captain, Maurice Miles, NHLBI, responded to the TV-9 challenge stating, "Our victory will be decisive—Deep-nine Channel 9."

Admission to the game is free. This year door prizes include tickets to Bullets, Capitals and Baltimore Orioles' games.

Among the many other door prizes are an Atlantic City trip and a day on the Chesapeake Bay aboard Amazing Grace. Anyone making a contribution to the PEF at the R&W Gift Shops is eligible for a door prize. Winners do not have to be present at the game.

A separate, special grand prize drawing of raffle tickets for a hairpin lace afghan will take place at the game. Tickets are on sale now at the R&W shop in Bldg. 10.

Hot dogs and soda will be on sale with all proceeds being donated to the PEF. □

Causative Organism of Lyme Disease Isolated by Rocky Mountain Lab Scientists

Staff scientists of the National Institute of Allergy and Infectious Disease's Rocky Mountain Laboratories have detected in and isolated from ticks a spirochete that may be the causative organism of Lyme disease (sometimes called Lyme arthritis). A spirochete is a spiral-shaped form of bacterium.

The disease first was observed in Lyme, Conn., in the summer of 1975, although



One *I. dammini* female tick and one nymph (just above the female) are feeding on an experimental animal.

cases have been found in other states. Much has been learned about Lyme disease since an NIADDK-supported research team from Yale University, headed by Dr. Allen C. Steere, began their investigations. Epidemiologic evidence has pointed to ticks of the genus *Ixodes* as the vector (transmitting agent), but no disease organism had been identified.

Lyme disease usually begins with a skin lesion called erythema chronicum migrans (ECM). Weeks to months after these lesions appear, neurologic or cardiac abnormalities and various forms of arthritis may follow. Recurrences of the inflammation and joint pains are intermittent and have not been tied to a specific cause. Penicillin therapy shortens the duration of ECM and may prevent or attenuate the subsequent arthritis.

The ticks, *I. dammini*, were collected from vegetation on Shelter Island, N.Y., a known focus of Lyme disease. Investigators at RML detected spirochetes in 61 percent of the ticks collected, varying from a few microorganisms in some ticks to large clumps in others. The spirochete recovered from the ticks now has been grown in pure culture in the laboratory. Electron microscopy revealed that it is similar in structure to the *treponemes*, one species of which causes syphilis.

In tests with New Zealand white rabbits, the scientists found that ECM-like lesions developed in the skin of rabbits fed upon by infected ticks. Sera of all the rabbits fed upon by such ticks contained antibodies to the specific spirochete 30 and 60 days after tick exposure.

The investigators also demonstrated that the spirochete binds antibodies in

sera of patients recovering from Lyme disease. They studied sera from nine patients who had clinically diagnosed Lyme disease, that is, diagnosis has been made based on symptoms, since no laboratory tests have existed. Sera diluted up to 1:280 times contained antibodies to the *I. dammini* spirochete, the investigators found. For comparison, they tested sera of 14 persons with no history of Lyme disease. At any level greater than 20 dilutions, there was no reaction with the spirochete.

Organism Involved in Etiology

This, the scientists observed, suggests that the organism "may be involved in the etiology (cause) of Lyme disease." In the first paper published describing their findings, they note that organisms with the structural characteristics of spirochetes were said to be associated with ECM in Europe more than 30 years ago. The association was never confirmed, but the improvement of symptoms of Lyme disease following penicillin therapy also points to a penicillin-susceptible bacterium as a causative agent.

The investigators, staff of the Epidemiology Branch and Laboratory of Microbial Structure and Function of the Institute's Rocky Mountain Laboratories in Hamilton, Mont., suggest that many unanswered questions concerning the significance of the spirochete and its relationship to the *Ixodes* tick now can be answered through experimental epidemiological studies.

Toward that end, the NIAID plans collaborative studies with the New York State Department of Health and with the Wisconsin State Departments of Health and of Fish and Wildlife.

A report of the isolation of the spirochete by NIAID investigators appears in the June 18 issue of *Science*. The authors are Drs. Willy Burgdorfer, head, Arthropod-



A scanning electron micrograph of *I. dammini* spirochete (the causative agent of Lyme disease) is shown in Kelly's medium.



Drs. Burgdorfer and Barbour evaluate electron microscope pictures of the *I. dammini* spirochete at the Rocky Mountain Laboratory.

Borne Diseases Section, Alan G. Barbour, Laboratory of Microbial Structure and Function, and Stanley F. Hayes, Operations Branch—all of the Rocky Mountain Laboratories.

In addition, Drs. Jorge L. Benach, N.Y. State Dept. of Health, Edgar Grunwaldt, Shelter Island, N.Y., and Jeffrey P. Davis, Wisconsin State Dept. of Health and Social Services, contributed to the study. □

Conference on Obesity To Be Held in Toronto

An international conference, The Adipocyte and Obesity: Cellular and Molecular Mechanisms, will be held at the University of Toronto, June 28 and 29. This conference will be the first international meeting on obesity since the III International Congress on Obesity held in Rome in 1980.

Intramural and extramural scientists of the National Institute of Arthritis, Diabetes, and Digestive and Kidney Diseases will be presenting papers and giving invited lectures. Dr. Samuel Cushman, section on cellular metabolism and obesity, Epidemiology and Field Studies Branch, will speak on the effect of insulin and obesity on the glucose transporter in fat cells. Visiting scientist Dr. Ulf Smith, from Goteborg, Sweden, of the same laboratory, will speak on the effect of fat cell size and obesity on lipolysis in human adipocytes.

The conference is designed to bring together scientists with diverse interests in adipose tissue, including its structural, biochemical and physiological properties. The role of nutritional and hormonal factors in fat cell metabolism will be examined. Cellular and molecular defects of obesity will be highlighted.

Dr. Robert O. Scow and members of the section on endocrinology, Laboratory of Cellular and Developmental Biology, will present an invited lecture and poster sessions on that laboratory's unique model for transport of lipid from blood vessels to tissue by lateral movement in a continuum of cell membranes. Many NIADDK grantees will be presenting keynote speeches. □

Two 1982 GM Foundation Prizewinners Are NIH-Associated

Two of the three 1982 winners of the General Motors Cancer Research Foundation awards are NIH-associated. The winners are: Drs. Howard E. Skipper, Denis Parsons Burkitt, and Stanley Cohen.

Each winner of the Kettering, Mott, and Sloan prizes received \$100,000 and a solid gold medal from the foundation, which were presented during award ceremonies held June 16. In addition to the prizes, each recipient was invited to deliver a lecture concerned with the work for which the respective prizes are given, and these were presented in the Clinical Center Masur Auditorium.

The foundation was created to recognize international scientific accomplishments in three basic areas of cancer research: diagnosis and treatment, prevention, and basic scientific contributions to the disease, particularly in the areas of etiology and pathogenesis.

Dr. Skipper, Southern Research Institute, Birmingham, Ala., the Charles F. Kettering prize-winner and a grantee of the National Cancer Institute, was honored for his contribution to understanding how fast-growing cancers, such as leukemias and lymphomas, grow and how they respond to drugs.

In his research with mice, Dr. Skipper demonstrated how to make the best use of certain drug characteristics. This work led directly to the successful multiple-drug therapies used today for patients with fast-

growing cancer like the leukemias, lymphomas, and testicular tumors.

Dr. Skipper demonstrated that a mathematical formula called "first-order kinetics," could actually approximate and describe what amount of cell-killing action could occur in the experimental animal or the cancer patient given chemotherapy.

In 1958, Dr. Burkitt recognized and described the cancer of the lymph glands now bearing his name. Winner of the Charles S. Mott prize, he is honored for his identification of the childhood cancer, and for the stimulating influence of his discoveries on cancer research.

Dr. Burkitt is honorary senior research fellow, St. Thomas's Hospital, London, England. His award lecture was entitled *The Discovery of Burkitt's Lymphoma*.

Working in East Africa under extremely difficult and primitive conditions, Dr. Burkitt tirelessly tracked the incidence of the cancer he had identified. He suggested years before it was obvious, that a virus played a crucial role in its etiology. In fact, Burkitt's lymphoma is still the strongest evidence for the idea that some subsets of human cancers are virally induced.

In addition to his work on the cause of this lymph cancer, Dr. Burkitt also developed a chemotherapy treatment which today makes this tumor one of the most curable of human cancers.

Dr. Burkitt noted a persistent association between malaria and this cancer, but

he revised his thoughts on the etiology of the disease. In the late 1960's, he suggested that this cancer arises from an interaction between a virus and lymph tissue which has already been somewhat altered as a result of chronic malarial or other serious infection. This is the basis of current thinking about the cause of Burkitt's lymphoma.

Dr. Cohen, professor of biochemistry at the Vanderbilt University School of Medicine and a National Institute of Child Health and Human Development grantee, is winner of the Alfred P. Sloan, Jr., prize. Dr. Cohen is honored for his discovery of epidermal growth factor (EGF), a hormone-like protein that regulates growth of many types of cells. His lecture was entitled *The Chemistry and Biology of Epidermal Growth Factor*.

Dr. Cohen has characterized the chemical structure of EGF in minute detail; defined its many biological activities; discovered the EGF receptor, the tiny protein on the surface of cells that combines with EGF to act on cells; and delineated the specific changes that occur in cells when EGF combines with its receptor.

Dr. Cohen, together with Drs. George J. Todaro and Joseph De Larco of NCI, showed that mouse cells transformed from normal to malignant by certain RNA tumor viruses were less able to bind EGF than normal cells. The investigators noted that this diminished binding did not occur in cells that were infected with noncancer causing viruses, or even in cells transformed by DNA-type tumor viruses. □

Study Links TV Violence To Aggressive Behavior

"Violence on television does lead to aggressive behavior by (some) children and teenagers who watch the programs," according to a National Institute of Mental Health update of a 1972 Surgeon General's report on television and behavior.

The new report states that "a causal link between televised violence and aggressive behavior now seems obvious. . . . In magnitude, television violence is as strongly correlated with aggressive behavior as any other behavioral variable that has been measured."

See Violence as Normal

Entitled *Television and Behavior: Ten Years of Scientific Progress and Implications*, the review supports and expands upon the findings of the earlier report. The update found that "children who watch a lot of violence on television may come to accept violence as normal behavior." This was found true for girls as well as boys for all ages of children.

In addition, adults are susceptible as well to the sway of TV violence. The report notes that people who watch a lot of television are more apt, than light viewers, to see the world as a "mean and scary" place and to put less trust in others.

The report was based on findings of 24-state-of-knowledge reviews commissioned by NIMH from "24 of the most knowledgeable researchers available." Nearly 90 per-

cent of all research on TV and behavior has been conducted within the past 10 years.

The 1972 report drew on 300 studies completed before 1970; the new report covered more than 2,500 studies done between 1970 and 1980, including longitudinal studies, crosscultural studies, and short-term studies.

The researchers found that television has the potential to be a positive social agent: "The evidence is persuasive—children can learn to be altruistic, friendly and self-controlled by looking at television programs depicting such behavior patterns."

It was recommended that parents mediate children's TV viewing by watching and discussing programs together, which may prevent negative influences and actually enhance children's growth capabilities.

Television has a "therapeutic potential" which might be exploited to help chronically mentally ill and elderly patients in institutions and emotionally disturbed children, the report said. In addition, it described successful TV campaigns on health issues and these are seen as evidence of television's vast health-promoting possibilities.

Generally, the report stated, "television seems to be doing a rather poor job (of health promotion) . . . television stories

and portrayals may be contributing to lifestyles and habits that are not conducive to good health."

A disproportionate number of commercials for sweet and snack food foster poor nutritional habits. Alcohol consumption "is common" and "is condoned." People often are seen driving cars but seldom wear seat belts.

Ratio Inverted

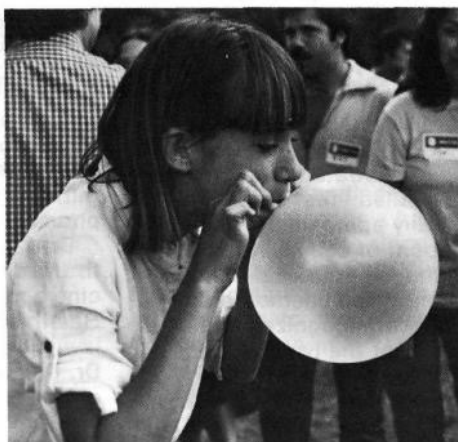
The researchers found that television viewing and education among adults "are inversely related; the less schooling, the more television viewing." Children with low IQ's watch television more than others, but "it is not known if heavy viewing lowers IQ scores or if those with low IQ's choose to watch more television."

A group of seven consultants guided the report under the direction of Dr. David Pearl, chief, NIMH Behavioral Sciences Research Branch. According to Dr. Pearl, the 1970-1980 research overwhelmingly supported the causal link between TV violence and aggressive behavior.

The summary report *Television and Behavior* (Vol. 1), may be purchased for \$5 from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. (Order by title and Stock No. 017-024-01129-1.) □

Portrait of a Picnic:

NIH Family Picnic



Blowing a bubble is a delicate maneuver.



Everybody, including the adults, gave their all in the tug-of-war.



How much pie can a person eat?



Apple dunking got many children wet.

Photo by H. Alvord.



An egg toss has to begin somewhere.

Almost 300 NIH employees, their families and friends feasted themselves at the second annual NIH Family Picnic held at Pinecliff State Park, in Frederick, Md., on Sunday, June 6. The old-fashioned family picnic, sponsored by the R&W Association, came complete with games that attracted many children and adults.

The events included back-breaking sack races, waterlogging apple bobbing, long-distance egg tosses, mighty tug-of-wars,

and a pie eating contest that would have made Henry VIII proud.

The contestants were lined up according to age, with separate categories for children, teens and adults. There were some bruised teenage male egos when the girls beat them in the tug-of-war. No less competitive was the adult version of the event. Prizes were given to those who participated.

Hot dogs were given out all day to those

with tickets, and liquid refreshment never stopped flowing.

Families and individuals chose up sides to play volleyball, badminton, or softball at a nearby diamond.

Members of the R&W Association's board of directors, executive council and R&W staff volunteered their services for registration, judging sporting events, and for food distribution. □

Two Employees Assist During IBM Shooting

On Friday, June 4, two NIH employees were summoned from the NIH campus in response to an emergency call on the fatal shooting and hostage incident a mile away at the IBM building in Bethesda. A gunman had driven his car into the building, killed two people, and wounded nine others. A third victim died shortly thereafter.

David S. Dwyer, administrative officer for the National Institute of Arthritis, Diabetes, and Digestive and Kidney Diseases and long-time chief of the Bethesda Chevy Chase Rescue Squad was called just as he was leaving for lunch.

He was informed that he was needed to direct rescue operations at the scene. Besides his own squad, Mr. Dwyer eventually coordinated the activities of eight local

fire and rescue teams that included NIH.

After receiving an emergency call from the Montgomery County Fire-Rescue Communications Headquarters that a paramedic was needed, Lt. Russell E. Graham of the NIH Fire Department, who also works in his off-duty hours as a volunteer paramedic with the county, drove an NIH utility vehicle to the building that was surrounded by county police SWAT team members.

As they started to evacuate the dead and wounded IBM employees, Lt. Graham treated an injured employee and transported him to Suburban Hospital.

NIH was contacted during this emergency because of a recent mutual aid agreement between NIH and Montgomery County. □

Federal Managers Meeting To Be Held June 24

The Federal Managers Association meeting will be held Thursday, June 24, at 11:30 a.m., in the Bish Thompson's Restaurant, 7935 Wisconsin Ave., Bethesda, Md.

The association is composed of managers and supervisors in the government organized to increase the working relationships with representatives of cities, counties, states and communities, and to support and defend legislation beneficial to the membership of the association.

For further information, contact Charles Lee at 496-4700. □

There is no man or woman living who isn't capable of doing more than he or she can do.—Henry Ford □

CPR Training Is Useful To NIH Employee

Last year, NIH Library translation assistant Audrey M. Hundertmark was one of many NIH employees who took the training in CPR—cardiopulmonary resuscitation—offered by the Occupational Medical Service of the Division of Safety.

Ms. Hundertmark was so impressed by the possibilities for lifesaving provided by CPR and other emergency measures that she joined the Wheaton Volunteer Rescue Squad soon after classes here.

She now spends from 82 to 100 hours a month on volunteer duty with the squad, including a weekly crew duty from 6 p.m. Friday to noon Saturday and a similar daytime shift every third Sunday. Having completed 7 months of training at the Montgomery County Public Service Training Academy, Ms. Hundertmark recently received state certification as an emergency medical technician.

"My very first time working on the ambulance, we responded to a heart attack call and found that the man's heart had stopped beating," she said. "We got it going again with chest compressions, and I'll never forget the feeling I had when his heart started beating on its own."



NIH CPR instructor Ms. Stewart (l) and Ms. Hundertmark (c) both of the Wheaton Rescue Squad, and Gary Bladen of Frederick County Fire Company 7 practice cardiac rescue techniques on a mannekin.

Ms. Hundertmark learned about the Wheaton Volunteer Rescue Squad from NIH's principal CPR trainer, Susan Stewart, who is a certified emergency paramedic on the squad. The Wheaton squad has more than 100 volunteer members, and about a third are women.

In addition to regular drills, each member must put in at least 6 hours of service in a hospital emergency room to become familiar with their procedures. If they wish, they can go on to paramedic training and firefighting training.

For further information about CPR, call Ms. Stewart, 496-4111. □

Teddy Wants You To Wash Your Hands

Handwashing prevents infection. This is the message the furry, pot-bellied bear on the poster gives all who enter the pediatric oncology unit in the Clinical Center. The posters on 6-West are designed to be light-hearted reminders of a serious subject—controlling infection among cancer patients. So far, the idea seems to be working.

Because of the side effects of chemotherapy, cancer patients are immunosuppressed and prone to fever and infection. Susceptible periods can last a few days or a few weeks depending on the patient and the treatment.

Since infection means additional hospitalization for the cancer patient, the senior staff of 6-West have developed programs aimed at controlling or preventing hospital and home infections. Although these programs sometimes include advanced technology, the staff also wanted to stress simple, everyday practices that can help prevent infection.

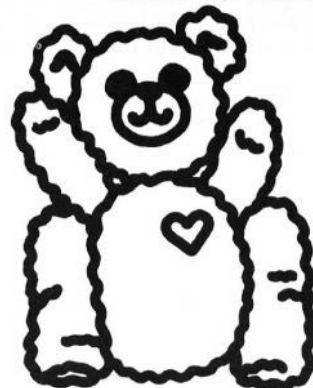
According to the Centers for Disease Control in Atlanta, poor handwashing procedures are the main cause of many hospital-acquired infections.

In September 1980 the "teddy bear-with-a-message" was introduced to the patients.

At first, the bear was the central feature of a coloring contest. Soon, the children began naming their bears and posting them on their doors and above their beds. The idea seemed to take hold, so staff members, together with the design unit of the Medical Arts and Photography Branch, DRS, developed posters and buttons featuring the furry spokesbear. These were printed and distributed to patients, staff and visitors. The bear became the emissary of handwashing health.

The appeal of the campaign has gone beyond expectation. Children remind

HANDWASHING PREVENTS INFECTION!



IT REALLY DOES

staffers to wash their hands before and after changing a dressing. A bear poster and button are included in an information packet, Fever and Infection Prevention, given to the families of the patients and to their home physicians.

Staff throughout the Clinical Center are wearing the buttons and requests for posters and buttons have come from visiting doctors and nurses. Recently, a slide of the poster was added to the Centers for Disease Control's Hospital Infection Program. This program, which deals with the problem of hospital infection, is given to hospital personnel throughout the United States.

Additional printing of the posters and buttons are being planned to meet the demand. For more information on the campaign or the posters and buttons, call (301) 496-4256. □

Here Comes the Ghost Train!

The NIH-R&W Theatre Group presents *The Ghost Train*, a three-act mystery comedy, at Masur Auditorium on July 16, 18, 22, and 24. Curtain time is 8 p.m. for all performances.

All NIH employees, families and friends are invited to attend performances. Tickets may be purchased at R&W or at the door. Proceeds will go to the Patient Emergency Fund.

Sally Richardson, NIDR National Caries Program, is the director and advises that volunteers are needed for backstage work. Interested persons can call 496-7716. □

Coffee Drinkers Needed for Study

The department of medicine, digestive diseases division, Uniformed Services University, is looking for people interested in participating in an investigation on the effect of coffee on stomach function.

They are looking for persons sensitive to coffee who experience any discomfort such as heartburn, nausea, or stomach

Fast Food Tickets To Be Given To Fast Blood Donors

The first 100 first-time blood donors or regular donors who bring a first-time donor with them will be given free fast food discount coupon books beginning Thursday, June 10, at the NIH Blood Bank.

These books are being presented to encourage new donors for Clinical Center patients. They are being provided by the R&W Association and the John Turner Printing Company.

Every day of the year, the NIH Blood Bank must have available 69 units of blood and blood components to meet patient needs. □

upset after drinking coffee. Persons who are not sensitive to coffee will also be needed as controls.

All persons participating will receive compensation. Interested parties can contact Dr. Terez Shea-Donohue or Dr. Andre Dubois at 295-3608. □

Video Display Terminal Operator's Safety, Health Issues Discussed

Computers and word and data processing equipment are becoming a way of life in many offices at NIH. The safety and health problems associated with using these machines were the subject of a forum held recently in the Masur Auditorium.

In response to a request for more information by a National Library of Medicine video display terminal operator, who experienced recurring eyestrain and was forced to buy a pair of special prescription glasses to see the VDT screen, the Division of Safety sponsored the seminar that was broadcast in-house through audiovisual closed-circuit television.

Three speakers presented slides and information on visual and illumination factors, workplace design factors, and radiation health risks associated with exposure from the machines.

A word processor uses essentially the same technology as a computer. The human operator "talks" to the machine through a typewriter-like keyboard, and the machine responds on a videoscreen, the VDT.

The word processor is designed specifically for creating, storing, editing, and printing text, and to increase productivity of typists, secretaries, writers, editors, executives and others.

Computers are more versatile than word processors because they can accept programs for a number of different functions. A computer programmed with word-processing software may perform the same function as a word processor but with more effort by the operator.

Using a computer as a word processor is harder for the user because of the computer's smaller video display. Some computers only display capital letters, but the distinction between computers and word processors is fading fast.

Addressed Systems Engineering Problems

Dr. Harry Snyder, Virginia Polytechnic Institute and State University, addressed the systems engineering problems between the operator and the VDT. Among office environment interaction problems of illumination, temperature, humidity and noise, Dr. Snyder particularly focused his talk on the visual problems of the VDT operator.

Characters are formed on the VDT by an electron beam scanning the screen, and letters are formed by dots with blank spaces in between. The eyes merge the dots to form continuous strokes as in printed text, which, according to Dr. Snyder, is what a good terminal should form. Cheaper models have more vertical separation.

When a VDT operator sees individually distinct dots, it has been scientifically proven that the operator will read slower and make more errors. Because the eyes are forced to focus and merge the dots, eye strain and visual fatigue are induced—more space forces the eyes to work



Bldg. 1 VDT operator Win Welsh, Office of Communications, has a comfortable work station set up in the corner of her office. Even though she's next to a window, she has sufficiently blocked the incoming light by pulling the blinds and drawing the curtains.

harder.

Dr. Snyder recommended that the character font, the number and placement of dots, be seven dots horizontally and nine dots vertically for optimal character legibility because of its large size. A five-horizontal and seven-vertical dot matrix is of marginal legibility because of its smaller size.

Contrast on VDT screens needs to be adjustable especially on older models. Deterioration of the cathode ray tube (CRT) illumination happens usually over a 9-month period—1,500 hours is the half life of the



This work station was designed and fabricated specifically to the needs and wants of the VDT operator by Stanley P. Allen, chief, Shops Branch, in Bldg. 13. Even though the branch does not make furniture, specific work station construction can be planned, by work order request, through this branch.

CRT. Operators should be aware of the CRT's age in their particular model.

One prevalent problem among VDT operators is that of wearing bifocal glasses. Normally, according to Dr. Snyder, 14 inches is the designed bifocal lower lens distance from the eye to the reading surface; the upper lens is refracted for good vision from 10 feet to infinity.

The CRT viewing distance however, is 20 to 25 inches, which is too far for good viewing by the bifocal wearer. In addition,

most contact lenses and glasses are prescribed for an 18-inch focal distance between the eye and the page.

Dr. Snyder suggests VDT operators visit their eye doctor and have plain lenses ground for the actual measured distance from the eyes in the normal work posture to the VDT screen.

Use Different Glasses

He suggests a pair of "upside down" bifocals. These glasses have a lower lens composed of 1/2 to 2/3 of the glass prescribed to focus at 25 inches. Thus, the wearer can also see the rest of the office with the wider field of vision.

The upper lens would be for distance viewing. Many eye doctors will prescribe tinted glasses for VDT operators complaining of eyestrain, but tinted glasses reduce VDT contrast.

Glare is a serious problem. Operators must look for sources of reflection or glare in their offices because glare makes the eyes work harder to compensate for out-of-focus images.

Glare sources can be eliminated by room design. Dr. Snyder suggests turning down office lights to 30-to-40 foot candle intensity, and using a local desk lamp to illuminate material on the desk. Or, lights could be turned off or recessed to improve character resolution on the screen.

Diffusers can be used over ceiling light panels to direct light downward. All office lights, if possible, should be aligned parallel to windows, and VDTs perpendicular to the windows.

Dr. K. Kroemer, also of VPI and State University, discussed the interaction of the eyes with VDTs; the fingers and hands with keyboards; the backs and butts with seats; and the feet with foot controls and/or space limitations and how these factors determine body posture.

To be comfortable, Dr. Kroemer suggests that the VDT operator's head and neck be inclined slightly forward and down so that the VDT screen is at right angles to the normal line of sight. Hands and forearms should be in a horizontal position with the hands slightly elevated. The upper arm should be hanging down, not elevated to produce static muscle fatigue.

Seat surface should be of a good size and of adjustable height for the legs. A back rest should be firm and provide good body support. Footrests are necessary for high chairs and short legs—feet need a surface to rest on.

Make Adjustments at Same Time

All parts of these interactions must be worked on together, not one at a time. They should all be easily adjustable for the VDT operator.

The radiation risk is an issue and concern for VDT operators. William Murray, National Institute of Occupational Safety and Health, explained that VDTs are electronic devices that emit light in a visual signal and produce electromagnetic radiation in the form of ultraviolet, infrared, radiofrequency and X-rays, all of

(Continued on Page 9)

(Continued from Page 8)

which may be given off by the cathode ray tube in the VDT.

NIOSH has been conducting radiation surveys since 1975 on all brands and types of VDTs. That agency has found that VDT radiation levels from: X-rays are not much above background radiation; ultraviolet is far less than the standard 1/10th of the value from working under fluorescent lights; infrared was not present; radiofrequency was at low levels at low frequencies; and radiation levels were below ambient background and standard thresholds.

Data are not available on the long-term risks of health effects from radiation to the VDT operator. NIOSH surveyors found that the various health complaints expressed and blamed on working with VDTs are not radiation related, and the alleged effects are not valid.

VDT operators should take 10-to-15-minute breaks for every hour of VDT use to rest their eyes. After 3 or 4 hours of VDT use, rest an additional 15 to 30 minutes.

Some major recommendations were to tilt terminals downward, or lower the line of vision to the VDT from the normal line of sight, rearrange and check office furniture and lights, check for adequate contrast and display on the VDT, and check eyes and glasses for optimal comfort.

—Joyce McCarthy □

HERMANNII

(Continued from Page 1)

"Using DNA hybridization, we showed that many of the atypical strains belong to biogroups of *E. coli*. Biochemistry, frequency, source, and, where available, clinical diagnosis are presented for each of these biogroups. A group of yellow-pigmented KCN-positive, cellobiose-positive strains, formerly called Enteric Group 11 by the Enteric Section, CDC, was shown to represent a new species in the genus *Escherichia*. Thus, the name *Escherichia hermannii* is proposed for this organism."

Emphasized Its Existence

Although the citation states that he was honored for "his many contributions to the study of yellow-pigmented bacteria," Dr. Herman says he assisted in emphasizing the widespread existence of yellow-pigmented bacteria rather than the actual isolation or characterization of this particular organism. He isolated them from water supplies in Canada, England, Germany, Italy, Japan and Korea.

According to Dr. John J. Farmer III at the CDC Bacteriology Reference Branch, Hospital Infectious Program, "Twenty-nine strains of *E. hermannii* have recently been isolated in the U.S. from a variety of clinical sources." He also indicated that "wounds account for almost 50 percent of these human isolates of *E. hermannii*, followed by sputum or lung isolates (25 percent), and stool isolates (20 percent)."

Dr. Herman was the 1971 president and Sanitarian of the Year in 1976 of the Environmental Management Association (national organization of sanitary environmen-

Friedreich's Ataxia Fact Sheet Available From NINCDS

The National Institute of Neurological and Communicative Disorders and Stroke has published a revised fact sheet on Friedreich's ataxia, an inherited disorder of the nervous system. The disorder affects approximately 8,600 people in the U.S.

Friedreich's ataxia is caused by a genetic abnormality that results in deterioration of brain areas controlling muscle coordination. Symptoms, which usually begin in childhood or youth, include muscle and an irregular manner of walking.

Spinal curvature, foot deformity and impaired speech may also be present. Diabetes and weakened heart muscles can occur.

A person must inherit defective genes from both parents for the disorder to develop. If a defective gene is inherited from only one parent, the child becomes a carrier of Friedreich's ataxia, but does not develop the disorder. Carriers appear neurologically normal, and sometimes may not know they are carriers until they produce an afflicted child.

The NINCDS fact sheet discusses causes, symptoms, and current research on Friedreich's ataxia. Single copies of the fact sheet may be obtained from the Office of Scientific and Health Reports, NINCDS, Bldg. 31, Rm. 8A06, Bethesda, MD 20205; telephone (301) 496-5751. □

talists). A native of Canada, he obtained his doctorate in microbiology from McGill University in 1948.

He joined NIH in 1958 in the Division of Research Services, has published and lectured extensively, and has accumulated various honors in his field and at NIH. In 1981, Dr. Herman received an NIH Suggestion Award for a 1977 submission.

He is also a past president of the NIH Toastmasters Club, and was one of the original founders of the group in 1969. He has recently been honored as a lifelong member by his fellow toastmasters. □

Telephones Remain, People Change; Inform Directory Services About It

Some NIH employees have gone, but are not forgotten because their names, telephone numbers, and addresses still appear in the recently updated and delivered NIH Telephone and Service Directory.

Departing employees, their supervisors, and friends are being encouraged to report changes in personnel and the arrival of new employees by using Form NIH-433 (original) Report of Name, Address, Office and Telephone Number.

This form is used to report new personnel, transfers, resignations, change of location or change of name. It should be sent to Directory Services Unit, Bldg. 10, Rm. B1A33. □

Defeat never comes to any man or woman until they admit it.—*Josephus Daniels* □

Dr. D. J. Reis Honored By Cornell Professorship

Dr. Donald J. Reis, a grantee of several NIH Institutes, has been chosen as the first George C. Cotzias Distinguished Professor of Neurology by the New York Hospital-Cornell Medical Center in New York.

Dr. Reis has made notable contributions to several areas of brain science. His work has had broad impact not only on neurobiology but on aspects of internal medicine, psychiatry and psychosomatic medicine as well.

The professorship honors Dr. Cotzias—an internationally known neurologist credited with developing the L-dopa therapy for Parkinson's disease—who died in 1977.

Among Dr. Reis' research accomplishments have been the recognition of new pathways in the brain which control blood pressure, and to define the chemicals in these pathways which exert the control.

These findings led to the major discovery and proved, for the first time, that imbalances in these pathways can result in hypertension and make the blood pressure vulnerable to environmental stresses.

Perhaps the greatest potential importance of these findings has been the recognition that there is a genetic control over dopamine neurons in the brain, and that variations in the number of these neurons may influence the magnitude of behaviors dependent upon the nerve cells.

This may result in the prospect that human beings may be genetically preprogrammed for vulnerability to the effects of degenerating brain diseases, such as dementia, parkinsonism or even schizophrenia.

Dr. Reis has over the past several years received almost \$10 million in grant support from the National Institute of Mental Health, the National Institute of Neurological and Communicative Disorders and Stroke, the National Heart, Lung, and Blood Institute, NASA, the U.S. Army, and private industry. □

Fall Hayfever Sufferers Needed as Volunteers

Fall hayfever sufferers are being sought as volunteers to participate in an allergy testing program administered by the Allergenic Products Branch of the Bureau of Biologics.

Persons who have experienced fall hayfever symptoms over the last several years are needed to evaluate the ongoing allergy testing program. Only HHS employees are eligible to participate.

Volunteers will be evaluated through skin and blood tests. They will also be monitored during the local pollen season to determine the relationship of symptom intensity to the local pollen count.

A group of patients may be selected to participate in an allergy injections program designed to determine the safety and effectiveness of the standardized extracts.

Interested persons who wish to volunteer can receive an allergy questionnaire by sending their name and address to: Dr. Paul C. Turkeltaub, Bldg. 29, Rm. 214. □

Dr. A. F. Hegyeli, NCI Administrator, Dies

Dr. Andrew F. Hegyeli, 62, program director for carcinogenesis in NCI's Occupational Cancer Branch, died June 6 at Suburban Hospital of a heart attack.

A native of Hungary, Dr. Hegyeli joined NCI's cancer control program in 1976. He supervised many projects, including the Bay Area Asbestos Awareness and Worker Notification contracts, the Know Your Body grant, and other cancer prevention activities, particularly antismoking and occupational risk programs.

"Andy brought to the control effort a real appreciation for the importance of a scientific base for prevention/intervention projects," said Dr. Arthur C. Upton, former NCI Director. "He was a critical and objective scientist and a passionate advocate, a very valuable combination. That's one reason he will be sorely missed."

Dr. Hegyeli's interests covered a broad spectrum. Following his bachelor's degree at St. Benedek in Budapest, he earned his M.S. in anatomy and two doctorates, one in veterinary medicine and the other in comparative anatomy, embryology, and general pathology, at Palatinus Josephus University in Budapest.

His research brought him distinction, and he won many awards in comparative anatomy, blood coagulation, hormone regulation and cancer. He also held a number of patents in Hungary and the United States.

During the Hungarian Revolution in 1956, Dr. Hegyeli worked with the Red Cross, and later fled to Austria. The National Academy of Sciences sponsored his entry into the United States to continue his research.

He worked at the Marine Biological Laboratory at Woods Hole, Mass., before joining the Battelle Institute in Columbus, Ohio, in 1965 as a senior research pathologist. After 4 years he became chief of the U.S. Army's Biomedical Evaluation Branch, first at Walter Reed Medical Center and then in Frederick, Md.

"Andrew had a broad range of scientific interests, especially biochemical and biophysical aspects of cell biology and carcinogenesis," said Dr. J. P. T. Pearman, acting chief of the Occupational Cancer Branch.

"He was particularly interested in the



Dr. Andrew F. Hegyeli

chemistry of nontoxic reversal of malignant transformation. Andrew looked forward to the time when cytotoxic drugs could be abandoned in cancer treatment." Dr. Hegyeli had just published a review paper on antitumor compounds of marine origin.

He served as an officer in the 1st Hungarian Cavalry Regiment during WW II, was severely wounded by machine gun fire, and was decorated several times for bravery. In his youth, Dr. Hegyeli won medals for gymnastics, horseback riding, and fencing.

Throughout his administrative career, he continued his scientific activities. He wrote more than 75 journal articles and reports and delivered 50 lectures and seminars.

Survivors include his wife, Dr. Ruth J. Hegyeli, assistant director for international programs at the National Heart, Lung and Blood Institute, and his brother, Dr. Zoltan Hegyeli of Las Vegas, Nev.

At the suggestion of some of his colleagues, a memorial fund has been established to continue emergency assistance to young people in need that Dr. Hegyeli had provided anonymously for many years.

Those who wish to remember him in this way may send contributions to: The Andrew Hegyeli Memorial Fund, c/o The Shrine of St. Jude, 12701 Viers Mill Rd., Rockville, Md. 20853.

Memorial services were held June 19 at St. Jude's Catholic Church.

Asthmatic Child Symposium Will Be Held Sept. 25

The Third Annual Pediatric Symposium for Physicians, sponsored by the American Lung Association, will be held on Saturday, Sept. 25, at the Bethesda Marriott.

The symposium will address recent advances in the diagnosis and treatment of the asthmatic child.

Among faculty members involved in the meeting is Dr. Michael A. Kaliner, NIAID. The program has been approved by the D.C. Thoracic Society for 8 AMA Category I credit hours.

Persons interested in attending should request registration by calling 881-6852, 663-4593, or 997-4333. □

Grants Workshop Attracts Many

A workshop on extramural grant support, sponsored by the National Institute of General Medical Sciences, recently was attended by 139 intramural postdoctoral fellows, staff fellows, and clinical, research and extramural associates from 11 Institutes.

The workshop was designed to help prospective grant applicants become familiar with both Federal and non-Federal grant processes.

Dr. Ruth Kirschstein, Director of NIGMS, welcomed participants. Speakers who followed her discussed preparation and review of grant applications, various sources of grant support, and types of NIH funding.

Speakers included: Drs. Harold Walters, DRG; Sara Gardner, NIGMS; Dennis Cain, NCI; Irvin Mohler, George Washington University; and Ronald Geller, NEI.

At the close of the workshop, small group sessions led by intramural scientists from several institutes were held to answer individual questions. □



Dr. Hiram Kitchen, chairman of the DRR Subcommittee on Animal Resources, has been awarded a Chancellor's Research Award from the University of Tennessee. Dr. Kitchen, professor and head of the University of Tennessee College of Veterinary Medicine, has specialized in studies of animal hemoglobins, the genetic basis of heterogeneity, and the use of animal models to study hemoglobin synthesis in humans.



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Polypeptide Bombesin May Serve As Marker for Small Cell Lung Cancer

Bombesin—a polypeptide associated with an invasive human lung tumor, which may serve as a marker for early detection and improved treatment of the disease—has been independently discovered by researchers from NIH and the Hammersmith Hospital in London, England.

National Institute of Environmental Health Sciences investigators found the polypeptide in human small cell lung cancer cell cultures, and squamous cell carcinomas from mice and rats. According to Dr. Lawrence H. Lazarus, a research chemist at NIEHS, "Bombesin immunoreactivity was initially found in 1978 in human fetal and neonatal lung tissue."

Radioimmunoassay techniques were used to analyze and identify various peptide hormones in these studies, which have since been further verified by using high pressure liquid chromatography and other chromatographic techniques. The exact location of bombesin in tumor cells has been investigated by using immunohistochemical techniques in the NIEHS studies.

Researchers from the National Cancer Institute and the National Naval Medical Center, in collaboration with Drs. Terry W. Moody of George Washington University and Dr. Candace B. Pert, National Institute of Mental Health, found bombesin in cultures from 19 patients with small cell cancer of the lung (SCCL). Bombesin was not present in patients with other forms of lung cancer. In a few cases, high levels of bombesin were also found in the blood of patients with SCCL.

These data were further corroborated by Dr. Stephen R. Bloom in London who found substantial amounts of bombesin-like reactivity in small cell cancer resected patients and also reported low levels in normal lung tissue.

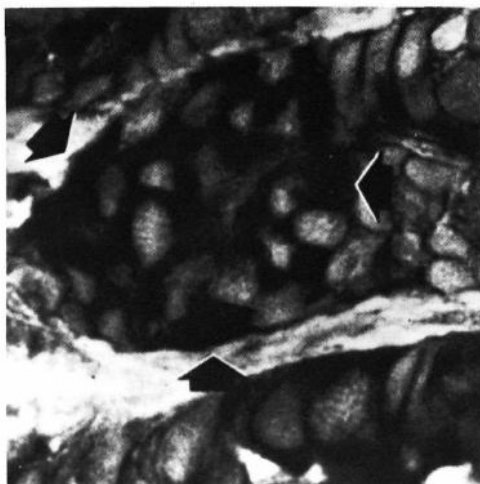
Although bombesin normally is plentiful in the brain, gut and fetal lungs, it is generally not present in the lungs of healthy adults. The scientists speculate that bombesin may sustain and promote tumor growth.

Small cell cancer of the lung accounts for one-quarter of the 100,000 cases of lung cancer that are diagnosed annually. It is the most rapidly spreading of the four major types of lung cancer—which include epidermoid, adenocarcinoma, and large cell lung cancer—but it also is the most responsive to radiation and chemotherapy.

Some 70 to 90 percent of patients with SCCL respond to therapy, but the majority of cases are far advanced at the time of diagnosis, with spread of the cancer to the brain, liver or bone. Relapse is commonplace. If SCCL is not treated, the median survival time is 56 days.

Those patients who respond to treatment have a median survival of 10 months; only about 5 percent of patients with the disease live beyond the 2-year mark.

Although a few patients with extensive SCCL had elevated blood levels of



Immunoreactive bombesin is surrounded by arrows pointing to its location as seen in cells of human small cell lung carcinoma.

bombesin in the NCI study, the peptide is difficult to detect in blood because it is quickly destroyed by enzymes in the blood.

In laboratory cell culture, the NCI researchers found that SCCL cells actively released bombesin which, in turn, encouraged the growth of those cells. If this is the case, an agent that could block the activity of bombesin might represent a mechanism to control tumor proliferation in SCCL patients.

Bombesin levels may be associated with an array of physiological effects, such as loss of appetite and subsequent weight loss, altered sugar metabolism and lowered temperature in SCCL patients. If bombesin levels could be controlled, related symptoms may possibly be also.

Another potential application of bombesin specifically may be in the typing and classification of lung tumors. Microscopic examination of tissue is often uncertain in the case of lung cancers and may delay appropriate treatment. Prompt identification of SCCL, based on the presence of bombesin in tissue specimens, could make pathology studies more precise and serve as a guide to selection of therapy.

The scientists believe that SCCL may arise from a specific subset of lung endocrine (hormone-producing) cells which proliferate after exposure to carcinogens. Studies of rodents exposed to carcinogens (asbestos, diethylnitrosamine) showed these cancer-promoting substances to induce the growth of endocrine cells, including bombesin-producing cells, in the lungs.

The research at NCI and the National Naval Medical Center was reported in the Dec. 11, 1981 issue of *Science* by Drs. Adi F. Gazdak, John D. Minna and Desmond N. Carney.

The work at NIEHS was published in the April 1982 issue of the *Proceedings of the National Academy of Sciences* by M.D. Erisman, R.I. Linnoila, O. Hernandez, R.P. Di Augustine and L.H. Lazarus. □

Torsion Dystonia Described In New Fact Sheet

Torsion dystonia, a neurological disorder which causes patients to writhe in repetitious, uninterrupted and uncontrollable movements, is described in a new fact sheet from the National Institute of Neurological and Communicative Disorders and Stroke.

The cause of torsion dystonia is as yet unknown. Some investigators, however, suspect a defect in the body's ability to process certain chemicals which help transmit nerve impulses.

Torsion dystonia may affect a single muscle or the entire body. The initial signs can be very mild, perhaps noticeable only after stress or fatigue. There may be involuntary muscle movements or tremors, and speech difficulties.

In some cases there is little or no progression of symptoms. In others, the movements gradually become more obvious and widespread; the constant twisting movements can lead to permanent physical deformities by causing tendons to shorten and connective tissue to build up in the muscles.

There are three forms of dystonia. Two are inherited and one is acquired. In the recessively inherited form, both parents—who appear normal—carry a defective gene and pass it on to their children. About one-fourth of their children will develop dystonia.

A parent who carries a gene for the dominantly inherited form of torsion dystonia generally has dystonic symptoms. Children of such parents have a 50 percent chance of also developing the disorder.

The less common acquired form of dystonia results from environmental causes such as drug reactions.

Single copies of *Fact Sheet: Torsion Dystonia* may be obtained from the Office of Scientific and Health Reports, NINCDS, Bldg. 31, Rm. 8A06, Bethesda, MD 20205; telephone (301) 496-5751. □

Make it a rule never to regret and never to look back. Regret is an appealing waste of energy.—*Katherine Mansfield* □



Nancy McCormick-Pickett, special assistant, Office of Cancer Communications, NCI, was elected recently as vice chairperson to the board of trustees of American Women in Radio and Television, Inc. for 1982-83.

Burroughs Wellcome and A. Rank Awards Presented to Two NIGMS Grantees

Two National Institute of General Medical Sciences grantees recently received significant scientific awards totaling \$255,000.

Dr. Henry R. Bourne, professor of medicine and pharmacology and chief of the division of clinical pharmacology of the University of California, San Francisco, received the 1982 Burroughs Wellcome Clinical Pharmacology Award.

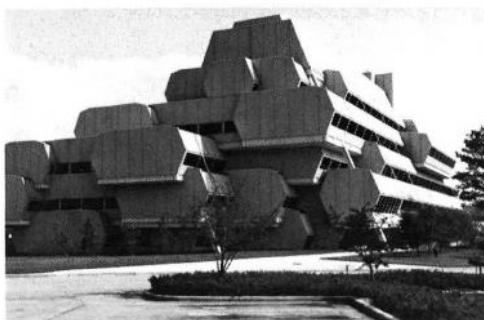
Dr. Calvin F. Quate, professor of applied physics and electrical engineering, Stanford University, received the Rank Prize Funds award.

The \$200,000 Burroughs Wellcome award is a 5-year award to the University of California on behalf of Dr. Bourne, in recognition of his research and academic achievements, and of UCSF's support for the development of clinical pharmacology as a discipline.

Dr. Bourne's research has focused on the molecular mechanisms by which drugs and hormones regulate normal cell functions.

From 1966 to 1968, Dr. Bourne received research training as an NIGMS pharmacology research associate in the Clinical Pharmacology Laboratory of what was then the National Heart Institute.

The award, which was established by Burroughs Wellcome to develop and strengthen the discipline of clinical pharmacology, will be used by the university to help support current research and to de-



The unusual architecture of the Burroughs Wellcome building, one of the world's foremost research and manufacturing pharmaceutical companies, in Research Triangle Park, N.C., presents a striking appearance.

velop a new faculty position within UCSF's division of clinical pharmacology.

The \$55,000 Rank Prize Funds award to Dr. Quate was made "for his work resulting in the production of the scanning acoustic microscope," which provides images similar to those seen with the optic microscope, but uses high frequency sound in place of optic frequency. With this microscope, Dr. Quate is able to look into living cells and observe the movements of their components.

The Rank Prize Funds award was established by British film producer, J. Arthur Rank, to honor individuals who make major contributions to the fields of optoelectronics and nutrition. □

Dr. C. D. Klaassen Named 1982 Burroughs Scholar

Dr. Curtis D. Klaassen, professor of pharmacology and toxicology at the University of Kansas Medical Center, Kansas City, has been selected as the 1982 Burroughs Wellcome Scholar in Toxicology



Dr. Klaassen

by the Society of Toxicology and the Burroughs Wellcome Fund.

The National Institute of Environmental Health Sciences' grantee will receive \$105,000, payable over a 3-year period. It supports teaching, training, and research in

academic institutions that have a commitment to toxicology as a basic science.

The toxicology scholar award recipient is selected on a competitive basis by the society through an advisory committee. The award is sponsored by the Burroughs Wellcome Fund, a private, nonprofit foundation headquartered in Research Triangle Park, N.C. This is the second year the award has been made.

Dr. Klaassen's research on the environmental agent cadmium and its toxicity in laboratory animals has received NIEHS

grant support for 7 years. He also receives NIEHS support under the training program in environmental toxicology.

In addition, his research on the toxicity of environmental agents also receives grant support from the National Institute of Arthritis, Diabetes, and Digestive and Kidney Diseases.

He has published many scientific papers on his research, review articles and book chapters. He has served as a visiting scientist at the Institute of Radiation and Environmental Research in Munich, Germany, and as guest professor of clinical pathology at the University of Bern, Switzerland.

Dr. Klaassen is a recipient of the achievement award of the Society of Toxicology and the Alexander von Humboldt Fellow Award. □

Dr. Joe Held Receives Distinguished Service Award

Dr. Joe R. Held, Director of the Division of Research Services, recently received the Distinguished Service Award of the School of Veterinary Medicine, University of California, Davis, at the school's 1982 commencement.

Dr. Held received his D.V.M. at Davis in 1955 and was commissioned in the U.S. Public Health Service the same year. □

A critic is a leglessman who teaches running.—*Channing Pollock* □

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